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ABSTRACT

This study investigated the relationships between teacher facilitative or directive verbal behavior in nursery school classrooms and seven aspects of child language change. Twenty-eight nursery teachers and 95 children from these classrooms were selected for this study. The teacher verbal behavior was measured by the Withall Social Climate Index, which produces a facilitative score and a directive score for each teacher. Child language change was determined by a pretesting and posttesting with the Peabody Picture Vocabulary Test and with a analysis of 50 consecutive statements. Within the limitations of this study and from the findings, it can be concluded that teachers consistently used a pattern of facilitative of directive verbal behavior in their classrooms. It can also be concluded that language for the four-year old children in this study, as measured by the instruments used, continued to change in the six month period. Finally, it can be concluded that, for children in this sample, change in use of complexity sentences was greater in those classrooms where teachers used more directive verbal behavior. In the other aspects of language change studied, the verbal behavior as measured by the Climate Index. (Author/RC)

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TEACHER VERBAL BEHAVIOR AND ITS RELATIONSHIP
TO GROWTH IN CHILD LANGUAGE*

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Language development in young children has received a great deal of attention in the last decade. Linguists, educators, psychologists, sociologists, and biologists continue to examine physical maturation, environment and culture to find the effect these have on language development.

The classroom and the teacher are a part of the young child's school environment. Teacher behavior in the classroom is considered to have a strong influence on the child's behavior and thus on his/her learning. One feature of teacher behavior is the manner in which a teacher talks and interacts with children in the classroom setting. The verbal behavior of a teacher may be open and facilitative for the child, offering the child choices and supporting him/her in learning. The teacher's verbal behavior also may be very directive, telling the child what to do and what not to do, modelling language behavior for and reproofing the child if the teacher structuring is not followed. There are probably links between teacher facilitative or directive verbal behavior and particular features of child growth.

The Central purpose of the investigation described herein was to examine specific features of child language change, as determined by change in vocabulary, complexity of sentences and functional use of sentences and relationship of the changes to the teacher's facilitative or directive verbal behavior.

METHOD:

Subjects: Twenty eight nursery teachers in two suburban Baltimore communities and four randomly selected children (ages 3.8 to 4.8) from these classrooms were selected. During the pretest and posttest a

total of seventeen subjects were dropped due to moves, illnesses and child inactivity. As a result a total of 95 children were tested on both the pretest and posttest.

Materials: The Withall Social Climate Index (1947) was used to measure the independent variables, the directiveness and facilitativeness of teacher verbal behavior. The dependent variables, aspects of child language were measured on the Peabody Picture Vocabulary Test and Analysis of 50 Consecutive Statements following procedures by McCarthy (1930), Templin (1957), Piaget (1955) and Johnson, Darley, Spriestersbach (1963).

Procedure: In order to measure change in child language a team of two examiners administered the instruments to the children. An early childhood examiner administered the Peabody Picture Vocabulary Test and then gave toys for the child to play with and to talk about. The second examiner, experienced in collecting speech samples from children, recorded manually and with tape recorder the child's verbalizations as he played and talked about the toys. From the tape and manual recordings the speech examiner made a running account of the child's verbalizations.

The investigator using the tapes and the types noted separated these verbalizations into 50 Consecutive Statements and then analyzed these statements as to mean length of response, vocabulary of use, complexity of sentence and functional use of sentence. Six months later the same procedures were followed for posttesting.

In order to measure teacher verbal behavior four coders were trained in the use of the Withall Social Climate Index reaching an average reliability coefficient of .75 on Scott's (1955) phi coefficient.

Each of the four coders then independently categorized the teacher verbal behavior in all classrooms. Each coder categorized a minimum of 50 statements in a 20 to 30 minute session. A schedule of observations was set up such that observations in each nursery classroom were made at different times of the day.

RESULTS:

A two way analysis of variance following the Medley and Mitzel (1963) model of teacher times rater and situation design used on the teacher verbal behavior scores revealed that teachers consistently and reliably used either facilitative or directive verbal behavior.

TABLE 1
MEANS, STANDARD DEVIATIONS AND RELIABILITY
COEFFICIENTS OF TEACHER VERBAL SCORES

Teacher Verbal Behavior	Mean	S.D.	Alpha
Facilitative	62.11	13.62	.815
Directive	30.50	13.81	.850

A t test of differences calculated on the pretest and posttest language scores of the children revealed that children in this sample showed significant language change in a six month period. Correlations between the pretest and posttest on all but one of the language measures were found to be significant. Children's vocabulary, complexity of sentences, mean length of response, dramatic imitation statements, and related-to-situation statements increased in usage over a six month period. There was a decrease in use of inquiry statements. These findings were similar to findings in the McCarthy (1930) and Templin

(1957) studies, both of which examined children's language development in similar ways to this study. (See Table 2)

In order to determine relationship between teacher verbal behavior and change on certain language variables partial correlations between posttest scores on language measures and teacher facilitative and directive verbal behavior were done partialling out the effect of the pre-tests. Results revealed that for the most part facilitative teacher verbal behavior was negatively correlated to language change though only one was statistically significant. A negative correlation indicates that as the specific teacher behavior increases the change in child language decreases. A positive correlation indicates that as the specific teacher verbal behavior increases change in child language increases. The one area of language change that was significantly correlated to teacher verbal behavior was complexity of sentence.

TABLE 3

PARTIAL CORRELATION COEFFICIENTS FOR TEACHER
VERBAL BEHAVIOR AND CHILD LANGUAGE MEASURES

Child Language Measure	Teacher Verbal Behavior	
	Facilitative	Directive
Peabody Picture Vocabulary Test	-.173	.169
Vocabulary of Use	-.300	.240
Mean Length of Response	-.215	.256
Complexity of Sentence	-.362*	.430*
Inquiry	.133	-.083
Dramatic Imitation	-.176	.211
Related to Situation	.119	-.105

*p < .10

TABLE 2

CLASSROOM MEAN SCORES, STANDARD DEVIATIONS, AND T TESTS OF STATISTICAL SIGNIFICANCE
OF CHANGES FOR CHILD LANGUAGE MEASURES

Child Language Measure	Pretest		Posttest		t
	Mean	S.D.	Mean	S.D.	
Peabody Picture Vocabulary Test	53.32	4.06	57.28	2.62	5.42*
Vocabulary of Use	94.89	11.38	104.21	10.77	3.27*
Mean Length of Response	5.18	.80	5.65	.74	3.13*
Complexity of Sentence	14.28	5.47	17.74	4.49	3.64*
Inquiry	9.45	7.31	6.27	3.21	2.52*
Dramatic Imitation	1.23	2.05	3.65	4.08	3.51*
Related to Situation	5.68	7.44	8.52	7.42	1.68

*
p < .10

DISCUSSION:

From the study several points are worth noting. Twelve of the fourteen correlations between teacher verbal behavior and specific aspects of child language measured in this study were non significant. For the subjects involved in this study there is little evidence of a relationship of the type of verbal behavior that the teacher uses in the classroom and aspects of child language change. The child from a middle class home environment seemingly develops many aspects of his language fairly consistently irrespective of the facilitative/directive teacher verbal climate. A very interesting point in support of this idea is that in the study the teacher with the highest facilitative verbal behavior and the teacher with the lowest facilitative verbal behavior had children with the greatest language gains.

However, in the study there is one important aspect of child language change that did correlate significantly with teacher verbal behavior.

The change in a child's use of complex sentences correlated significantly with teacher directive verbal behavior.

Figure 1 is a graphic presentation of the child change in use of complexity of sentences. The classroom scores are rank ordered according to teacher facilitative verbal behavior from highest to lowest. Inspection of the ends of the scale shows greater gains in complexity for children in the more directive (less facilitative) classrooms. It can be concluded that for children in this sample change in use of complexity of sentences is greater in those classrooms where teachers use more directive verbal behavior. This relationship suggests that perhaps something is happening in these directive classrooms that relates to the child developing more complex language. (See Figure 1)

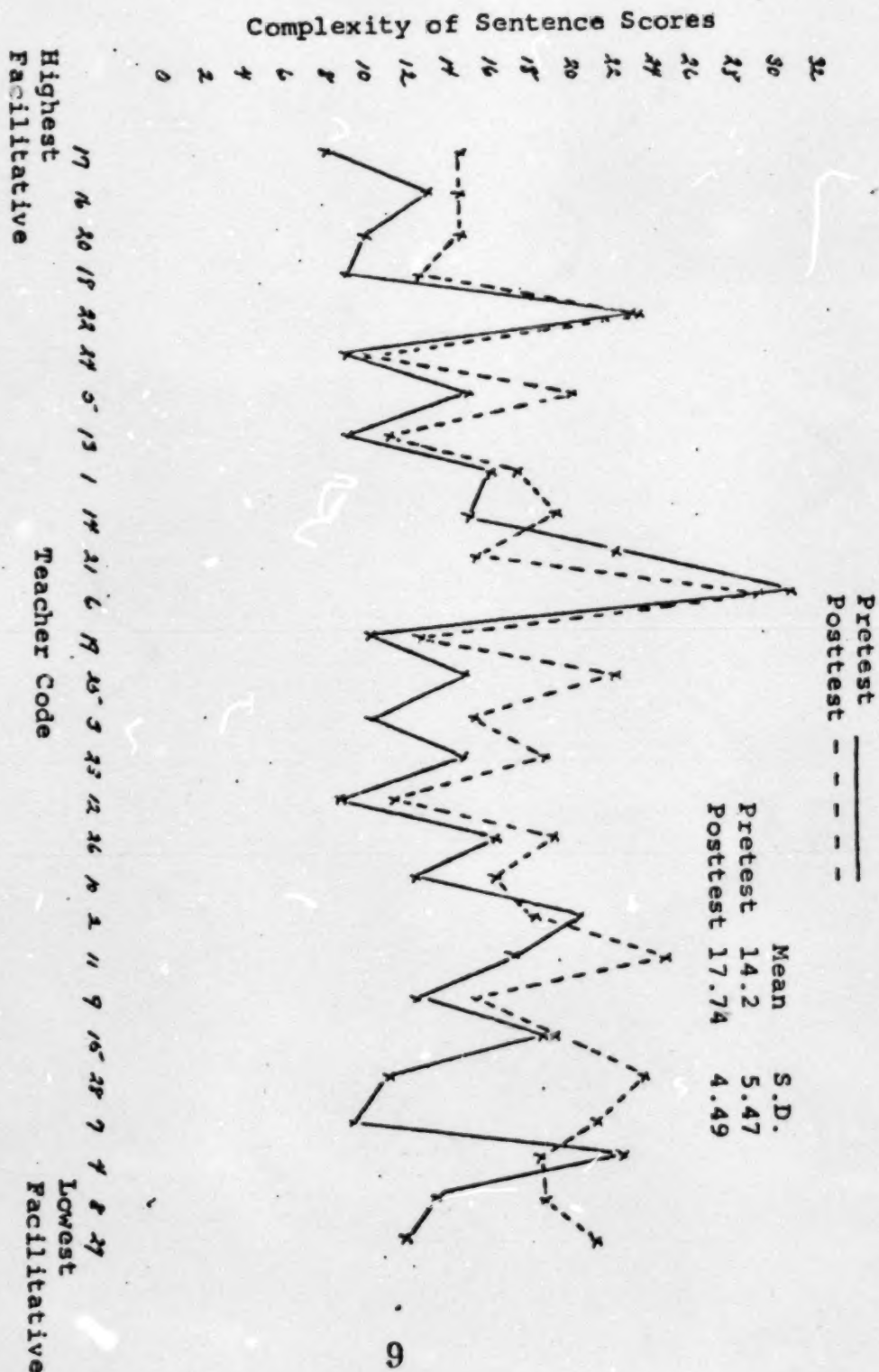


Fig. 1.--Pretest and posttest results for Complexity of Sentences for classroom rank ordered from highest to lowest on facilitative behavior.

Often, it is believed that to develop language a rich and relatively free environment is needed. The conclusions of this study point to the need to define the characteristics of the relatively free or more structured environment that might enhance complexity of language. Interestingly enough the greatest gain in child complexity of language in the classrooms of the teachers with greater facilitative verbal behavior was for the teacher with the highest facilitative score. (See Figure 1).

Further research needs to be done to determine what components in directive verbal behavior and facilitative verbal behavior are similar and might influence this change in complexity of sentences. No classroom in this study followed a strictly direct teaching approach modelled after Berlieter-Englemann. However, it could be possible that a fair amount of modelling language behavior was done.

In this study teacher statements such as "Go into the next room, find the black pencil and bring it to me," and "When you come back tell me what you did," would have been coded on the Withall scale as directive statements. Yet both are elaborated sentences. The teacher is directing the child to focus not only on a task but also on rather elaborate language structure.

On the other hand a statement such as "I wonder what would happen if I added water to this mixture," would be coded facilitative on the Withall Index. It too is an elaborated sentence. If the statement were made to a small group or one child it would undoubtedly also focus on a task and on elaborate language structure. Further research would help to determine if modelling behavior or simply a more elaborated

use of language in the nursery classroom is related to change in child use of complex sentences.

The study indicates teachers could be trained to use similiar techniques as those used in the study for observing the language development of the children in their classrooms. The results of their observations could then serve them in determining the need of modelling and focusing attention on certain types of language structure for individual children.

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